# *Appendix I*
# *Survey of Resource Assessment Activities Statewide*

In 2005, Fish and Game's Resource Assessment Program (RAP) initiated a survey of wildlife assessment and monitoring efforts statewide. The survey was designed to provide a summary of current wildlife monitoring efforts in California and to facilitate communication among different individuals, organizations, and agencies.

Surveying wildlife assessment work across the state involves contacting hundreds of researchers and institutions. California is geographically the third-largest and the most biodiverse state in the nation. Given the extensive area, the diversity of species and the numbers of special-status species, the job of monitoring and assessing California's native wildlife statewide is enormous. There are numerous biologists associated with various public and private institutions studying wildlife and wildlife issues. For this survey, attempts were made to contact biologists at 20 federal, state, and local agencies or branches, including the U.S. Department of the Interior, the U.S. Department of Agriculture, the U.S. Department of Defense, and, in California state government, the Department of Fish and Game, State Parks, Department of Forestry and Fire Protection, Department of Water Resources, and Bay-Delta Authority.

There are 10 campuses within the University of California system, 21 campuses within the California State University system, 25 private colleges and universities, and 103 community colleges that have biological science departments and natural reserves with faculty that may be actively engaged in wildlife research. In addition, there are numerous local biologists employed by city and county governments, nonprofit groups and foundations, and private consulting firms that may be actively involved in wildlife research or may coordinate wildlife monitoring programs. Research projects that actually handle wild

animals must have a permit. Fish and Game's License and Revenue Branch issued more than 2,700 scientific collecting permits to individuals from more than 800 different organizations in 2004. (Not all of these permits were issued to individuals involved with wildlife monitoring projects. However, many monitoring activities, such as visual surveys, do not require state permits.) It was beyond the capacity of this project to communicate with all of the active wildlife biologists.

The initial goal of the wildlife monitoring database was to provide a central source of information about all of the wildlife monitoring activities within California. While the information collected to date is far from complete, it is also clear that there is a strong interest in sharing of information about wildlife and wildlife research within California. Examples include:

- The National Park Service has implemented an Inventory and Monitoring Program that organizes national parks and monuments into regional networks based on similar habitats. Within California, examples include the Mojave Network (Joshua Tree National Park, Death Valley National Park, Manzanar National Historic Site, and the Mojave National Preserve), and the Sierra Network (Yosemite National Park, Sequoia and Kings Canyon National Park, and Devils Postpile National Monument).
- The Western Ecological Research Center (WERC) of the U.S. Geological Survey maintains files on all ongoing projects by staff within their jurisdiction. In addition, WERC is working closely with biologists at Fish and Game on the development of a database containing wildlife research data accessible to biologists within the two agencies.
- The California Interagency Wildlife Task Group, created in 1981 to promote improved understanding of the biology of California's wildlife and the application of this information to land management, includes members from 16 federal and state agencies who have met quarterly since 1985. One of the tasks presented to this group is to identify and prioritize the wildlife management, research, and database needs for California. Progress reports on wildlife and wildlife habitat databases indicate that there are a large number of databases available in California, including several extensive lists (Natural Resources Project Inventory, Information Center for the Environm ent, California Environmental Resources Evaluation System), but none are comprehensive for all wildlife activities statewide. There is also a strong consensus for the development of consistent methodology among agencies and groups for inventory projects.

The survey results are on the Web at http://www.dfg.ca.gov/habitats/wdp/project_search.asp. This initial survey effort identified only a portion of the resource assessment activities in California. Among the individual biologists surveyed, many have indicated an interest in the development of a central database for sharing information within and among agencies, offices, and organizations. If there is continued funding and support for this effort, the initial steps taken as part of the RAP survey, in conjunction with existing databases and cooperative efforts among various agencies, could facilitate the development of a more complete central wildlife database for the state.

## Survey Results Summary

The RAP wildlife monitoring database contains 420 responses from 149 individuals, agencies, field offices, and organizations throughout the state. Several agencies and organizations are well represented, including those that conduct multiple studies throughout California and maintain internal project databases, such as the USGS and Point Reyes Bird Observatory offices. In fact, federal agencies and nongovernmental organizations were recognized as the project lead for 46.9 percent and 26.2 percent of the projects, respectively. Others agencies, or units within an agency, indicated an interest in the project but were unable to respond due to low staffing levels or lack of wildlife data that met the parameters of the database. Projects that originated from academic institutions represented 22.9 percent of the responses. However, much of this data was collected from project status reports submitted to third parties, such as the University of California Natural Reserve System. There are few responses from local (city and county) biologists (2.6 percent) or biologists from the private sector (4.0 percent).

Responses vary from studies of individual species to efforts to quantify and identify all wildlife present within a given habitat or area. The majority of the responses (51.9 percent) describe efforts to monitor bird species or include birds within the range of species studied. In contrast, projects addressing reptiles, amphibians, and insects comprised only 9.3 percent, 10.5 percent, and 14.8 percent, respectively. Interest in bird watching, the large number of bird-oriented organizations throughout California, and funding opportunities for avian studies are probably an important factor in the large number of projects collecting avian data. In contrast, monitoring projects that collect invertebrate, amphibian, or reptile data are generally derived from studies of endangered or threatened species.

Results also showed a geographic bias. Data from 37.6 percent of the projects was collected from sites within the Central Valley Region. The North Coast (16.7 percent), Central Coast (14.5 percent), and Sierra (13.1 percent) regions had similar response rates. In contrast, only 6.2 percent of the responses included data from the Colorado or Mojave deserts. While it is likely there are fewer projects and programs in some regions due to the presence of few biologists and regional field offices (such as the Mojave Desert and Colorado Desert), the actual results of the survey are probably more indicative of variation in the availability of time to complete the survey and local biologists' interest in the project.

Survey data was collected and the database updated through August 31, 2005. The database is available on the Web at http://www.dfg.ca.gov/habitats/wdp/project_search.asp. The RAP survey will not be expanded or updated further unless resources are allocated to do so.